

## CLAIMS

1. A device for exciting modes in an optical waveguide, comprising:  
an entry face onto which a part of a coherent beam of a light source is directed; and
- 5 a reflector for deflecting another part of the coherent beam of the light source onto the entry face such that an interference pattern for exciting various modes is produced.
2. A device for exciting modes in an optical waveguide as claimed in  
10 claim 1, wherein the reflector is a planar mirror and the light source is arranged asymmetrically with respect to an optical axis of the optical waveguide.
3. A device for exciting modes in an optical waveguide as claimed in  
claim 1, wherein the reflector is provided with a planar pattern.
- 15 4. A device for exciting modes in an optical waveguide as claimed in claim 3, wherein the pattern is holographic.
5. A device for exciting modes in an optical waveguide as claimed in  
20 claim 1, wherein the light source lies on an optical axis of the optical waveguide and the reflector surrounds a space between the light source and the entry face.
6. A device for exciting modes in an optical waveguide as claimed in  
claim 5, wherein the reflector is a cone envelope which encloses the space between  
25 the light source and entry face.
7. A device for exciting modes in an optical waveguide as claimed in  
claim 5, wherein an inside of the reflector is mirrored.

8. A device for exciting modes in an optical waveguide as claimed in claim 5, wherein an inside of the reflector has a pattern.